

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333385-930

Luminaire Tested: **S125DIW-S610D1050U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333385-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D1050U930-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4921.5 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

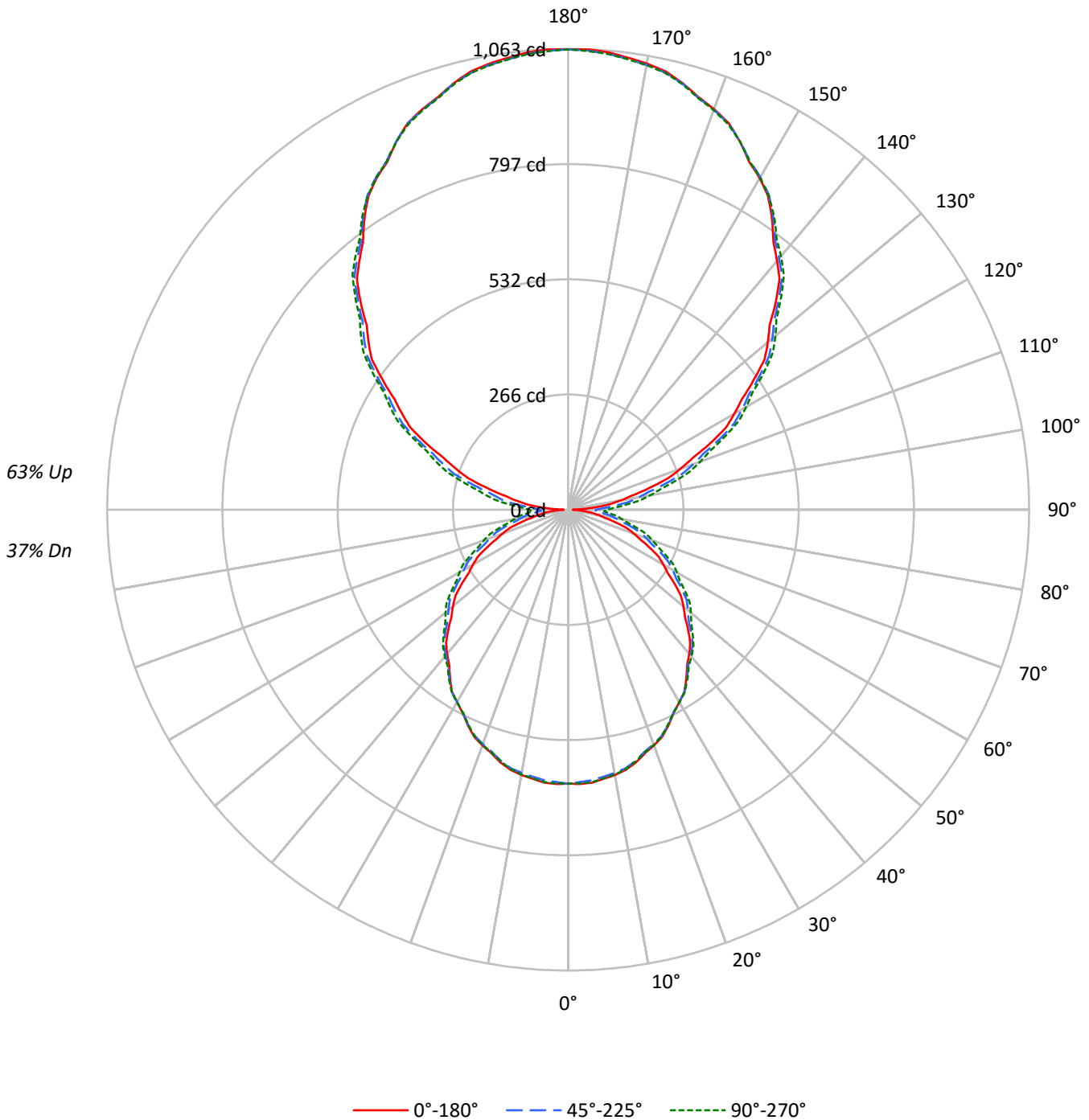
Input Watts (W): 45.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	94	90	86	82	85	82	78	75	66	64	61	52	50	49	38	37	36	30
2	86	78	72	67	77	71	66	61	57	54	50	45	42	40	33	32	30	25
3	78	68	61	55	70	62	56	51	50	46	42	40	36	34	29	27	26	21
4	71	60	53	46	64	55	48	43	45	40	36	35	32	29	26	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	24	21	19	15
6	60	48	40	34	54	44	37	32	36	30	26	28	24	21	21	19	17	13
7	55	43	35	30	50	39	32	28	32	27	23	26	22	19	19	17	15	12
8	51	39	31	26	46	36	29	24	29	24	20	23	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	16	14	12	9
10	44	33	25	21	40	30	23	19	25	20	16	20	16	13	15	13	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4081	4081	4081
5°	4089	4005	4018
10°	4060	3934	3927
15°	4011	3849	3813
20°	3946	3742	3698
25°	3869	3629	3558
30°	3775	3505	3429
35°	3687	3390	3311
40°	3598	3269	3193
45°	3497	3166	3089
50°	3401	3054	2996
55°	3285	2948	2886
60°	3159	2827	2775
65°	3027	2702	2650
70°	2876	2529	2521
75°	2639	2363	2363
80°	2328	2164	2190
85°	2041	2028	2136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	1.2
10°-20°	169.6	3.4
20°-30°	252.2	5.1
30°-40°	298.8	6.1
40°-50°	308.9	6.3
50°-60°	284.6	5.8
60°-70°	230.0	4.7
70°-80°	154.0	3.1
80°-90°	82.2	1.7
90°-100°	115.9	2.4
100°-110°	243.0	4.9
110°-120°	377.8	7.7
120°-130°	480.6	9.8
130°-140°	529.9	10.8
140°-150°	515.1	10.5
150°-160°	431.7	8.8
160°-170°	287.0	5.8
170°-180°	100.4	2.0
0°-30°	481.6	9.8
0°-40°	780.4	15.9
0°-60°	1373.8	27.9
0°-90°	1840.1	37.4
90°-120°	736.7	15.0
90°-150°	2262.3	46.0
90°-180°	3081.0	62.6
0°-180°	4921.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	626	631	631	60
15°	603	604	600	603	601	170
25°	548	550	546	548	546	252
35°	474	478	477	479	479	297
45°	391	398	401	405	406	302
55°	300	310	320	327	330	268
65°	207	221	236	245	248	205
75°	114	130	150	162	165	121
85°	34	55	76	89	95	36
90°	11	37	64	82	89	10
95°	62	80	109	127	134	64
105°	194	208	232	248	256	207
115°	360	368	385	395	398	356
125°	522	527	540	548	550	467
135°	677	681	686	694	694	522
145°	819	822	824	827	828	512
155°	937	937	938	940	937	431
165°	1019	1017	1018	1021	1016	287
175°	1059	1056	1056	1060	1055	101
180°	1062	1062	1062	1062	1062	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	633.3	633.1	632.9	632.7	632.4	631.9	631.2	630.4	629.7	628.8	629.7
5°	631.9	631.5	631.3	631.0	630.7	630.1	629.2	628.2	627.2	626.2	627.4
7.5°	626.2	626.1	626.1	625.9	625.8	625.3	624.3	623.3	622.3	621.3	622.2
10°	621.3	621.3	621.3	621.3	621.3	620.8	619.6	618.6	617.4	616.4	617.3
12.5°	614.4	614.5	614.6	614.7	614.8	614.4	613.5	612.7	611.8	610.9	611.6
15°	603.3	603.5	603.6	603.7	603.9	603.5	602.5	601.5	600.6	599.7	600.5
17.5°	589.0	589.2	589.5	589.8	590.1	589.7	588.8	587.8	586.9	585.9	586.5
20°	578.5	578.9	579.1	579.4	579.7	579.4	578.4	577.4	576.4	575.4	575.8
22.5°	566.7	567.2	567.7	568.2	568.7	568.3	567.3	566.2	565.2	564.1	564.6
25°	548.2	548.6	549.0	549.4	549.8	549.7	548.9	548.0	547.1	546.3	546.9
27.5°	527.7	528.2	528.9	529.5	530.1	529.9	529.0	528.1	527.1	526.2	526.5
30°	512.3	513.1	514.0	514.8	515.6	515.6	514.8	514.0	513.1	512.3	512.6
32.5°	498.4	499.1	499.9	500.6	501.2	501.3	500.8	500.1	499.5	498.9	499.2
35°	474.5	475.5	476.5	477.4	478.3	478.7	478.3	477.8	477.4	477.0	477.4
37.5°	450.6	451.5	452.3	453.2	454.1	454.4	454.4	454.2	454.0	454.0	454.4
40°	434.2	435.4	436.4	437.6	438.6	439.1	439.0	438.9	438.7	438.5	439.1
42.5°	416.4	417.8	419.2	420.7	422.2	423.0	423.3	423.6	423.9	424.2	424.9
45°	390.9	392.4	393.9	395.4	397.0	398.0	398.8	399.4	400.1	400.8	401.8
47.5°	364.8	366.2	367.5	368.9	370.4	371.6	372.8	374.0	375.2	376.3	377.8
50°	346.9	348.4	349.9	351.5	352.9	354.5	356.0	357.5	359.0	360.5	362.1
52.5°	328.1	329.9	331.7	333.6	335.4	337.3	339.2	341.0	342.8	344.6	346.3
55°	300.4	302.6	304.8	307.0	309.2	311.4	313.6	315.8	318.0	320.2	321.8
57.5°	272.2	274.8	277.4	280.1	282.7	285.4	287.9	290.4	292.9	295.5	297.2
60°	253.4	256.1	258.9	261.6	264.4	267.1	269.9	272.6	275.4	278.1	280.2
62.5°	235.1	237.7	240.5	243.3	246.1	248.9	251.8	254.9	257.8	260.8	263.1
65°	206.9	210.1	213.2	216.4	219.6	222.8	226.1	229.4	232.7	236.0	238.1
67.5°	180.4	183.4	186.5	189.6	192.6	195.8	199.2	202.5	205.9	209.3	211.7
70°	161.0	164.2	167.4	170.6	173.7	177.1	180.7	184.3	187.8	191.4	194.0
72.5°	142.2	145.5	148.8	152.1	155.3	158.9	162.8	166.7	170.6	174.6	177.4
75°	114.0	117.6	121.2	124.7	128.3	132.3	136.7	141.1	145.5	149.9	152.6
77.5°	86.8	91.0	95.1	99.2	103.4	107.5	111.8	116.0	120.3	124.5	127.5
80°	70.0	74.1	78.3	82.4	86.5	90.9	95.6	100.3	104.9	109.7	112.7
82.5°	54.6	58.9	63.3	67.7	72.1	76.6	81.4	86.2	91.0	95.8	98.7
85°	34.1	38.6	43.1	47.7	52.3	56.9	61.7	66.5	71.3	76.2	79.2
87.5°	19.5	24.2	28.9	33.6	38.3	43.1	48.0	53.0	57.9	62.9	66.2
90°	10.8	16.6	22.5	28.4	34.2	40.1	46.1	52.1	58.0	64.0	68.1
92.5°	28.9	34.0	39.1	44.2	49.3	55.0	61.4	67.8	74.2	80.6	84.8
95°	61.7	65.7	69.6	73.6	77.5	82.8	89.3	95.8	102.3	108.8	113.2
97.5°	96.5	99.9	103.3	106.6	110.0	115.2	122.3	129.3	136.3	143.4	147.5
100°	122.5	125.4	128.2	131.2	134.0	138.8	145.7	152.5	159.2	166.1	170.6
102.5°	150.4	153.8	157.2	160.6	164.0	168.4	174.0	179.4	185.0	190.5	195.1
105°	194.0	197.1	200.2	203.3	206.4	210.6	215.8	221.0	226.2	231.5	235.4
107.5°	242.1	244.9	247.7	250.5	253.2	257.1	261.9	266.7	271.5	276.3	279.6
110°	275.3	277.9	280.5	283.0	285.6	289.1	293.5	297.9	302.3	306.7	309.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	309.7	311.4	313.2	315.0	316.8	320.0	324.4	328.9	333.3	337.8	340.6
115°	359.8	361.5	363.1	364.8	366.6	369.4	373.3	377.2	381.2	385.1	387.4
117.5°	410.0	411.0	412.0	412.9	413.9	416.2	420.0	423.6	427.4	431.1	433.6
120°	441.7	443.1	444.4	445.7	447.1	449.4	452.7	456.2	459.5	462.8	465.1
122.5°	475.6	476.1	476.7	477.2	477.8	479.7	483.3	486.8	490.3	493.9	495.9
125°	522.1	523.1	524.0	525.0	525.9	527.9	530.8	533.8	536.7	539.6	541.5
127.5°	571.0	571.5	572.0	572.5	573.0	574.5	577.0	579.4	581.9	584.4	586.3
130°	600.8	601.6	602.3	603.2	603.9	605.4	607.7	610.0	612.3	614.7	616.4
132.5°	630.1	631.5	633.0	634.5	635.9	637.4	638.8	640.3	641.6	643.0	644.8
135°	677.0	677.9	678.9	679.9	680.9	681.9	683.1	684.2	685.3	686.5	688.3
137.5°	721.1	722.1	723.1	724.0	725.0	725.9	726.8	727.7	728.5	729.4	731.2
140°	749.1	750.0	750.9	751.9	752.8	753.6	754.2	755.0	755.6	756.3	758.1
142.5°	777.5	778.1	778.9	779.5	780.2	780.8	781.5	782.3	783.0	783.7	785.2
145°	819.3	819.9	820.5	821.1	821.7	822.2	822.8	823.4	823.9	824.4	825.2
147.5°	857.4	857.8	858.2	858.5	858.9	859.4	859.8	860.2	860.7	861.1	861.8
150°	883.1	883.0	882.7	882.6	882.4	882.6	883.4	884.1	884.8	885.6	885.6
152.5°	904.2	904.5	904.7	905.1	905.3	905.6	905.9	906.1	906.4	906.8	907.2
155°	936.8	936.8	936.8	936.8	936.8	936.9	937.1	937.3	937.4	937.7	938.4
157.5°	965.9	965.5	965.1	964.7	964.3	964.2	964.3	964.5	964.7	964.9	965.6
160°	983.1	982.5	981.9	981.5	980.9	980.7	980.9	981.0	981.2	981.5	982.2
162.5°	998.3	997.8	997.4	997.0	996.6	996.5	996.5	996.5	996.6	996.6	997.5
165°	1018.6	1018.2	1017.8	1017.5	1017.1	1017.0	1017.2	1017.4	1017.6	1017.7	1018.5
167.5°	1035.8	1035.0	1034.3	1033.6	1032.8	1032.5	1032.5	1032.5	1032.5	1032.5	1033.6
170°	1045.1	1044.3	1043.6	1042.8	1042.1	1041.7	1041.7	1041.7	1041.7	1041.7	1042.8
172.5°	1051.7	1050.9	1050.2	1049.5	1048.7	1048.3	1048.3	1048.3	1048.3	1048.3	1049.5
175°	1059.1	1058.3	1057.6	1056.9	1056.1	1055.7	1055.7	1055.7	1055.7	1055.7	1056.9
177.5°	1062.9	1062.3	1061.7	1061.1	1060.5	1060.1	1060.0	1059.9	1059.7	1059.6	1060.5
180°	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
2.5°	630.4	631.2	631.9	632.3	632.2	632.1	631.9	631.9
5°	628.4	629.6	630.6	631.1	631.0	630.9	630.7	630.6
7.5°	623.2	624.2	625.2	625.6	625.4	625.3	625.2	625.0
10°	618.3	619.2	620.2	620.6	620.5	620.4	620.2	620.0
12.5°	612.4	613.1	613.9	614.1	613.7	613.3	613.0	612.6
15°	601.3	602.1	602.9	603.1	602.5	601.9	601.4	600.9
17.5°	587.2	587.7	588.4	588.6	588.2	587.9	587.6	587.3
20°	576.3	576.7	577.2	577.3	577.3	577.3	577.3	577.3
22.5°	565.1	565.7	566.1	566.2	565.9	565.6	565.2	564.9
25°	547.5	548.0	548.5	548.5	547.8	547.1	546.4	545.8
27.5°	526.9	527.3	527.7	527.7	527.5	527.3	527.0	526.8
30°	512.8	513.1	513.4	513.5	513.3	513.1	513.1	512.9
32.5°	499.5	499.7	500.0	500.1	499.9	499.8	499.7	499.5
35°	477.8	478.3	478.7	478.8	478.8	478.8	478.8	478.8
37.5°	455.0	455.6	456.2	456.4	456.3	456.2	456.2	456.2
40°	439.7	440.3	440.8	441.2	441.5	441.7	442.1	442.3
42.5°	425.5	426.2	426.8	427.2	427.3	427.3	427.4	427.5
45°	402.7	403.7	404.6	405.2	405.4	405.4	405.6	405.8
47.5°	379.2	380.6	382.0	382.9	383.2	383.4	383.8	384.1
50°	363.5	365.1	366.6	367.5	367.9	368.4	368.8	369.2
52.5°	347.9	349.5	351.1	352.1	352.5	352.7	353.0	353.4
55°	323.3	324.8	326.3	327.3	327.9	328.5	329.0	329.5
57.5°	299.0	300.7	302.4	303.5	303.9	304.4	304.8	305.2
60°	282.3	284.3	286.4	287.6	288.0	288.5	288.9	289.3
62.5°	265.4	267.7	269.9	271.3	271.8	272.4	272.9	273.5
65°	240.1	242.2	244.3	245.6	246.1	246.7	247.2	247.8
67.5°	214.3	216.8	219.2	220.9	221.6	222.3	223.1	223.7
70°	196.7	199.3	201.9	203.6	204.4	205.2	206.1	206.9
72.5°	180.3	183.0	185.9	187.6	188.3	188.8	189.5	190.0
75°	155.4	158.2	160.9	162.7	163.3	164.0	164.7	165.4
77.5°	130.5	133.6	136.6	138.4	138.9	139.5	140.1	140.6
80°	115.7	118.7	121.7	123.5	124.1	124.7	125.2	125.7
82.5°	101.6	104.5	107.5	109.4	110.4	111.4	112.3	113.3
85°	82.3	85.3	88.3	90.3	91.5	92.5	93.7	94.7
87.5°	69.5	72.9	76.2	78.4	79.6	80.6	81.7	82.8
90°	72.2	76.2	80.4	83.2	84.6	86.2	87.7	89.2
92.5°	89.0	93.4	97.6	100.4	101.8	103.1	104.5	105.9
95°	117.5	121.8	126.0	128.9	130.2	131.6	132.9	134.2
97.5°	151.6	155.7	159.8	162.4	163.6	164.8	165.9	167.1
100°	175.1	179.7	184.2	187.1	188.3	189.5	190.7	191.8
102.5°	199.7	204.2	208.8	211.7	213.1	214.4	215.8	217.1
105°	239.2	243.0	247.0	249.6	251.1	252.7	254.1	255.7
107.5°	282.8	286.1	289.4	291.5	292.3	293.1	293.9	294.7
110°	313.0	316.2	319.4	321.3	322.1	322.9	323.7	324.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	343.2	346.0	348.8	350.5	351.1	351.8	352.4	353.0
115°	389.8	392.1	394.4	395.8	396.5	397.1	397.7	398.4
117.5°	436.1	438.5	441.1	442.4	442.6	442.8	443.0	443.2
120°	467.5	469.9	472.2	473.4	473.5	473.6	473.7	473.8
122.5°	498.1	500.1	502.2	503.4	503.6	503.9	504.1	504.3
125°	543.3	545.2	547.0	548.1	548.7	549.2	549.7	550.2
127.5°	588.1	590.0	591.8	593.0	593.4	593.8	594.3	594.7
130°	618.1	619.9	621.6	622.6	623.0	623.3	623.6	623.9
132.5°	646.5	648.2	650.0	650.9	651.0	651.0	651.1	651.2
135°	690.1	691.9	693.7	694.6	694.5	694.5	694.4	694.3
137.5°	733.0	734.9	736.8	737.5	737.1	736.8	736.4	736.1
140°	760.1	762.0	763.9	764.6	764.2	763.9	763.4	763.1
142.5°	786.8	788.3	789.8	790.4	790.0	789.6	789.3	788.9
145°	825.8	826.6	827.2	827.5	827.5	827.5	827.5	827.5
147.5°	862.4	863.2	863.8	863.6	862.6	861.6	860.6	859.6
150°	885.6	885.6	885.6	885.5	885.3	885.0	884.8	884.5
152.5°	907.6	908.1	908.5	908.4	907.8	907.1	906.5	905.9
155°	939.1	939.9	940.6	940.4	939.6	938.7	937.8	936.8
157.5°	966.4	967.1	967.8	967.6	966.4	965.2	963.9	962.8
160°	982.9	983.7	984.4	984.2	983.3	982.4	981.5	980.6
162.5°	998.4	999.2	1000.1	1000.0	999.0	997.9	996.9	995.8
165°	1019.2	1019.9	1020.7	1020.5	1019.5	1018.3	1017.2	1016.1
167.5°	1034.7	1035.8	1036.9	1036.9	1035.8	1034.6	1033.5	1032.3
170°	1043.9	1045.1	1046.1	1046.0	1044.7	1043.5	1042.2	1040.9
172.5°	1050.5	1051.7	1052.7	1052.7	1051.6	1050.4	1049.3	1048.1
175°	1057.9	1059.1	1060.2	1060.1	1058.8	1057.5	1056.2	1054.9
177.5°	1061.4	1062.3	1063.1	1063.0	1062.0	1060.9	1060.0	1058.9
180°	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5

(END OF REPORT)